FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Washington, D.C. 20549	OMB APPROVAL			
STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP	OMB Number:	3235-		

OMB Number:	3235-0287								
Estimated average burden									
hours per response									

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b)

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

Name and Address of Reporting Person* Westphal Christoph H						2. Issuer Name and Ticker or Trading Symbol Flex Pharma, Inc. [FLKS]										all app		g Per	(10% C	wner
(Last) (First) (Middle) C/O FLEX PHARMA, INC. 800 BOYLSTON STREET				11/08	3. Date of Earliest Transaction (Month/Day/Year) 11/08/2016										Officer (give title Other (specify below) President and CEO					
(Street) BOSTON (City)			02199 Zip)		4. If A	4. If Amendment, Date of Original Filed (Month/Day/Year)									Indivi ne) X	Form	al or Joint/Group Filing (Check Applicable Form filed by One Reporting Person Form filed by More than One Reporting Person			
Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned																				
1. Title of Security (Instr. 3) 2. Transac Date (Month/Da				Execution Date,			Transaction Disposed Code (Instr. 5)			ties Acquired (A) d Of (D) (Instr. 3, 4			4 and Sec Ben Owi		Amount of curities neficially vned Following		wnership n: Direct or Indirect nstr. 4)	7. Nature of Indirect Beneficial Ownership		
								Code	v	Amount	(A (D) or)	Price		Reported Transaction(s) (Instr. 3 and 4)				(Instr. 4)	
Common Stock 11/08/2			/2016	2016			P		7,000		A	\$7.31(1)		3,941,118		D				
Common Stock														3,212,861			I	See notes ⁽²⁾		
Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)																				
1. Title of Derivative Security (Instr. 3)	erivative Conversion Date Execution Date, curity or Exercise (Month/Day/Year) if any		4. Fransaction Code (Instr. 3)		of		6. Date Exercisable Expiration Date (Month/Day/Year)		•	7. Title and Amount of Securities Underlying Derivative Security (Instr. and 4)		str. 3	8. Pri Deriv Secui (Instr	ative rity	9. Number of derivative Securities Beneficially Owned Following Reported Transaction (Instr. 4)	F C C	LO. Dwnership Form: Direct (D) or Indirect I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)		
					Code V		(A) (D)		Date Exercisal		Expiration Date	Title	or	ount nber res						

Explanation of Responses:

1. The price in Column 4 is a weighted average purchase price. The prices actually received ranged from \$7.30 to \$7.32. The reporting person will provide to the Issuer, any security holder of the Issuer, or the SEC staff, upon request, information regarding the number of shares purchased at each price within the range.

2. Represents shares held by Longwood Fund II, L.P. ("Longwood Fund II") and Longwood Fund III, L.P. ("Longwood Fund III"). Longwood Fund II GP, LLC is the ultimate General Partner of Longwood Fund III. Fund II and Longwood Fund III GP, LLC is the ultimate General Partner of Longwood Fund III. Christoph Westphal, M.D., Ph.D., Richard Aldrich and Michelle Dipp, M.D., Ph.D. (collectively, the "Managers") are managers of Longwood Fund II GP, LLC and Longwood Fund III GP, LLC, and, as such, may be deemed to have shared voting and dispositive power with respect to the Issuer's securities held by Longwood Fund II and Longwood Fund III (the "Longwood Shares"). Each of the Managers disclaims beneficial ownership of the Longwood Shares, except to the extent of their respective pecuniary interest therein, and the inclusion of these shares in this report shall not be deemed an admission of beneficial ownership of the shares for purposes of Section 16 or for any other purpose.

Remarks:

/s/ Robert Hadfield, Attorneyin-Fact

11/08/2016

** Signature of Reporting Person

Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- * If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.